NO.NC/QC/BTP/2020-21/SB/W5-1

Date: 12-07-202

To,
The Executive Engineer,
BBMP Byataranayanapura Division
Bangalore.

"FREQUENCY AND QUALITY REPORT"

Dear Sir,

Subject: Regarding Quality Report for the below mentioned work.

Name of Work: Improvements to roads and drains at Kattigenahalli Main and Cross, Sirinagara Nirantara Layout, Sri krishna Garden, Shivashankara Layout, Varaha Layout, Bindhu Layout, and Surrounding areas in Ward No- 05

Item No	Description of work	Unit	Qty	No of Samples Tested	Frequency	Results Standards
1	KSRB M2100-10 : Providing and laying plain cement concrete of Mix 1:3:6 with OPC @ 220kgs,with crushed 40mm and	Cum	6.51	2	Per 50 cum	Meets Morth V Revision Standards
2	KSRB 4-1.6: Providing and laying in position plain cement concrete of Mix 1:2:4 with OPC at 240kgs, with 20mm	Cum	4.88	1	Per 50 cum	Meets Morth V Revision Standards
3	Construction of granular sub-base Grading V as Sub-base and drainage layer by providing coarse graded crushed stone	Sqm	1320.83	7	Per 200 cum	Meets Morth V Revision Standards
5	KSRRB M400-17. Providing, laying, spreading and compacting crushed stone aggregates of granite / trap / basalt to wet	Cum	2342.30	6	Per 400 cum	Meets Morth V Revision Standards
6	KSRRB M500-17. Providing and laying Dense Graded Bituminous Macadam using crushed aggregates of specified grading,	Cum	1306.59	26	Per 50 cum	Meets Morth V Revision Standards
7	Providing and laying bituminous concrete 40mm thick with hot mix plant, using crushed aggregates of specified grading,	Cum	1241.56	25	Per 50 cum	Meets Morth V Revision Standards

With respect to the above subject & name of the work, we have inspected the work and the Quantity and Quality of above mentioned items of the work was found to be completed satisfactorily for the 2nd and Final bill

Thanking you,

With Regards,

For Newzen Consultants Bangalore

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2nd & final
005-20-000094
B B. umesh.

NC/QC/BD/W5/2020-21/P1-2-C1 Date: 03-02-2021

1. TEST REPORT ON CEMENT:

Sub: Testing of 53 Grade Cement Sample (IS 12269-1987).
{Project*: Improvements to roads and drains at Kattigenahalli Main and Cross, Sirinagara Nirantara Layout, Sri krishna Garden, Shivashankara Layout, Varaha Layout, Bindhu Layout, and Surrounding areas in Ward No- 05.}
Ref.: Material testing/PMC/20-21,
Report Required for: Assistant Executive Engineer,
Byatarayanapura Sub Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: M/s SMLP Asphalts, Prop : B B Umesh, Bangalore.

PHYSICAL TESTS ON CEMENT

Grade * : 53,
Type * : O.P.C

TABLE 1.1:

SL No	Name of Test	Test Results	Requirements as per IS 8112-1989
1	Initial setting time	**156 min**	Shall not be less than 30 min
2	Final setting time	**265min**	Shall not be more than 600 min
3	Fineness (by dry sieving on IS 90 micron sieve)	**2.15%**	Not to exceed 10.0%
4	Soundness test(by Le-Chatelier's method)	**2.09mm**	Shall not be more than 10 mm
5	Compressive strength a) 3 days (average of three results)	**28.75 N/Sq mm**	Shall not be less than 27 N/Sqmm

The result of the materials tested meets the standards and hence can be used for the work.

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ಬಿ.ಬಿ.ಎಂ.ಪಿ., ಬೆಂಗಳೂರು-24

NEWZEN CONSULTANTS BANGALORE

NEWZEN CONSULTANT BANGALORE, #13,10TH MAIN ROAD 2ND CROSS JNANAJYOTHI NAGARA,
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NC/QC/BD/W5/2020-21/P1-2-PCC1

Date: 03-02-2021

1. TESTING OF COARSE AND FINE AGGREGATES:

Sub: Testing of Coarse and Fine aggregates to be used for bed concrete.
{Project*: Improvements to roads and drains at Kattigenahalli Main and Cross, Sirinagara Nirantara Layout, Sri krishna Garden, Shivashankara Layout, Varaha Layout, Bindhu Layout, and Surrounding areas in Ward No- 05.}
Ref.: Material testing/PMC/20-21,
Report Required for: Assistant Executive Engineer,
Byatarayanapura Sub Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: M/s SMLP Asphalts, Prop : B B Umesh, Bangalore.

1. COARSE AGGRGATES TABLE - SIEVE ANALYSIS:

IS Sieve Size, mm	Percentage passing	Requirements as per IS 383-1970 (Reaffirmed on 2007) % Passing	
	40 mm Sample	Single size	Graded
40mm	100.00	85-100	90 – 100
20mm	66.20	0 -20	30- 70
10mm	30.80	0 -5	10- 35
4.75mm	4.05	------	0- 5

2. FINE AGGREGATES TABLE - SIEVE ANALYSIS:

IS Sieve Size, mm	Percentage Passing	Specification as Per IS: 383-1970(Reaffirmed 2002) Percentage Passing			Remarks
		Zone-I	Zone-II	Zone -III	
04.75	95.70	90-100	90-100	90-100	The Sample Conforms to Grading **Zone-II**
02.36	83.15	60-95	75-100	85-100	
01.18	71.05	30-70	55-90	75-100	
600.mic	45.80	15-34	35-59	60-79	
300.mic	23.15	5-20	8-30	12-40	
150.mic	5.80	0-10	0-10	0-10	

The result of the materials tested meets the standards and hence can be used for the work.

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NC/QC/BD/W5/2020-21/P1-2-CE1 **Date: 08-02-2021**

1. TEST REPORT ON CEMENT:

Sub: Testing of 53 Grade Cement Sample (IS 12269-1987).
{Project*: Improvements to roads and drains at Kattigenahalli Main and Cross, Sirinagara Nirantara Layout, Sri krishna Garden, Shivashankara Layout, Varaha Layout, Bindhu Layout, and Surrounding areas in Ward No- 05.}
Ref.: Material testing/PMC/20-21,
Report Required for: Assistant Executive Engineer,
Byatarayanapura Sub Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: M/s SMLP Asphalts, Prop : B B Umesh, Bangalore.

PHYSICAL TESTS ON CEMENT

Grade * : 53,
Type * : O.P.C

TABLE 1.1:

SL No	Name of Test	Test Results	Requirements as per IS 8112-1989
1	Initial setting time	**163 min**	Shall not be less than 30 min
2	Final setting time	**275 min**	Shall not be more than 600 min
3	Fineness (by dry sieving on IS 90 micron sieve)	**1.89 %**	Not to exceed 10.0%
4	Soundness test(by Le-Chatelier's method)	**1.92mm**	Shall not be more than 10 mm
5	Compressive strength a) 3 days (average of three results)	**28.55 N/Sq mm**	Shall not be less than 27 N/Sqmm

The result of the materials tested meets the standards and hence can be used for the work.

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NC/QC/BD/W5/2020-21/P1-2-FA1 **Date: 08-02-2021**

1. TESTING OF FINE AGGREGATES :

Sub: Testing of Fine Aggregates.
{Project*: Improvements to roads and drains at Kattigenahalli Main and Cross, Sirinagara Nirantara Layout, Sri krishna Garden, Shivashankara Layout, Varaha Layout, Bindhu Layout, and Surrounding areas in Ward No- 05.}
Ref.: Material testing/PMC/20-21,
Report Required for: Assistant Executive Engineer,
Byatarayanapura Sub Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: M/s SMLP Asphalts, Prop : B B Umesh, Bangalore.

TABLE - 1.1 : SIEVE ANALYSIS :

IS Sieve Size,mm	Percentage Passing	Specification as Per IS: 383-1970(Reaffirmed 2002) Percentage Passing			Remarks
		Zone-I	Zone-II	Zone -II	
04.75	**96.15**	90-100	90-100	90-100	The Sample Conforms to Grading **Zone-II**
02.36	**83.25**	60-95	75-100	85-100	
01.18	**71.05**	30-70	55-90	75-100	
600. mic	**45.80**	15.34	35-59	60-79	
300.mic	**24.45**	5-20	8-30	12-40	
150.mic	**6.30**	0-10	0-10	0-10	

TABLE 1.2 ;

Sl No	Test Conducted	Sample	Results	Requirements as Per IS. Specification IS :383-1970 (Reaffirmed 2002)
1	Bulking of Sand	001	**17.63 %**	-----
2	Silt Content	----	**0.59%**	Not more than 8%
3	Specific Gravity	----	**2.61**	-------

The result of the materials tested meets the standards and hence can be used for the work.

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NC/QC/BD/W5/2020-21/P1-2-CA1

Date: 08-02-2021

1. TESTING OF COARSE AGGREGATES (20 mm):

Sub: Testing of Construction Materials.
{Project*: Improvements to roads and drains at Kattigenahalli Main and Cross, Sirinagara Nirantara Layout, Sri krishna Garden, Shivashankara Layout, Varaha Layout, Bindhu Layout, and Surrounding areas in Ward No- 05.}
Ref.: Material testing/PMC/20-21,
Report Required for: Assistant Executive Engineer,
Byatarayanapura Sub Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: M/s SMLP Asphalts, Prop : B B Umesh, Bangalore.

Table - 1.1 : SIEVE ANALYSIS :

IS Sieve Size, mm	Percentage passing	Requirements as per IS 383-1970 (Reaffirmed on 2002) % Passing	
	20 mm Sample	Single size	Graded
40 mm	100.00	100.00	100.00
20 mm	98.25	85-100	90 - 100
10 mm	46.90	0 - 20	25 - 55
4.75 mm	3.85	0 - 5	0 - 10

TABLE 1.2 :

SL No	Test conducted	Results	Requirements as per IS:383-1970 & Tests Conforms to IS 2386(Part I to IV) – 1963 (Reaffirmed on 2002)
1.	Flakiness Index	26.36%	Not to exceed 25 %
2.	Crushing value	28.79%	Not to exceed 45 % for concrete other than for wearing surfaces and 30% for concrete for wearing surfaces

The result of the materials tested meets the standards and hence can be used for the work.

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NC/QC/BD/W5/2020-21/P1-2-CB1

Date: 17-02-2021

1. TEST REPORT ON CEMENT CONCRETE CUBES:

Sub: Testing of Concrete Cubes (for 07days Compressive Strength).
{Project*: Improvements to roads and drains at Kattigenahalli Main and Cross, Sirinagara Nirantara Layout, Sri krishna Garden, Shivashankara Layout, Varaha Layout, Bindhu Layout, and Surrounding areas in Ward No- 05.}
Ref.: Material testing/PMC/20-21,
Report Required for: Assistant Executive Engineer,
Byatarayanapura Sub Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: M/s SMLP Asphalts, Prop : B B Umesh, Bangalore.

RESULTS OF COMPRESSIVE STRENGTH ON CEMENT CONCRETE

CUBE SPECIMENS

Dimensions of Specimen : 150 X 150 X 150mm

Grade of Concrete* : M_{15}

TABLE 1.1:

Sl No	Location/ Identification*	Date of Casting*	Date of Testing	Age in Days	C/S Area in mm^2	Maximum Load in K.N	Compressive Strength (N/mm^2)	Avg. Value
1	001	10-02-21	17-02-21	07	22500	300	13.33	**13.41**
	002	"	"	"	"	295	13.11	
	003	"	"	"	"	310	13.78	

The result of the materials tested meets the standards and hence can be used for the work.

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NC/QC/BD/W5/2020-21/P1-2-CB1A

Date: 10-03-2021

1. TEST REPORT ON CEMENT CONCRETE CUBES:

Sub: Testing of Concrete Cubes (for 28days Compressive Strength).
{Project*: Improvements to roads and drains at Kattigenahalli Main and Cross, Sirinagara Nirantara Layout, Sri krishna Garden, Shivashankara Layout, Varaha Layout, Bindhu Layout, and Surrounding areas in Ward No- 05.}
Ref.: Material testing/PMC/20-21,
Report Required for: Assistant Executive Engineer,
Byatarayanapura Sub Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: M/s SMLP Asphalts, Prop : B B Umesh, Bangalore.

RESULTS OF COMPRESSIVE STRENGTH ON CEMENT CONCRETE

CUBE SPECIMENS

Dimensions of Specimen : 150 X 150 X 150mm

Grade of Concrete* : M_{15}

TABLE 1.1:

Sl No	Location/ Identification*	Date of Casting*	Date of Testing	Age in Days	C/S Area in mm^2	Maximum Load in K.N	Compressive Strength (N/mm^2)	Avg. Value
1	001	10-02-21	10-03-21	28	22500	415	18.44	**18.44**
	002	"	"	"	"	425	18.89	
	003	"	"	"	"	405	18.00	

The result of the materials tested meets the standards and hence can be used for the work.

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NC/QC/BD/W5/2020-21/P1-2-GSB1 Date: 15-02-2021

TEST REPORT ON GRANULAR SUBBASE MIX
(GRADATION TEST)

Sub: To conduct tests on GSB (Grade-V) mix.
{Project*: Improvements to roads and drains at Kattigenahalli Main and Cross, Sirinagara Nirantara Layout, Sri krishna Garden, Shivashankara Layout, Varaha Layout, Bindhu Layout, and Surrounding areas in Ward No- 05.}
Ref.: Material testing/PMC/20-21,
Report Required for: Assistant Executive Engineer,
Byatarayanapura Sub Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: M/s SMLP Asphalts, Prop : B B Umesh, Bangalore.

TEST RESULTS

1. **Gradation Test:**
TABLE 1.1

Sieve Size mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Specified Limits as per MoRTH Specifications, V Revision-2013
75.00	**100.00**	100
53.00	**98.45**	80-100
26.50	**76.60**	55-90
9.50	**54.15**	35-65
4.75	**43.05**	25-50
2.36	**18.25**	10-20
0.85	**7.50**	2-10
0.425	**3.15**	0-5

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Date: 15-02-2021

TABLE 1.2

SL No	Test conducted	Test Results	Tests Conforms to IS 2386(Part I to IV)– 1963 (Reaffirmed on 2002) & Requirements as per IS:383-1970 & M.o.R.T.H Specification, V Revision -2013.
1.	Water absorption, %	**0.42 %**	Not more than 2.0 %
2.	Liquid Limit, %	**18.39**	Not more than 25.0 %
3.	Plasticity Index, %	**NP**	Not more than 6.0 %
4.	Moisture Content, %	**6.56**	----------
5.	Aggregate Impact Value, %	**28.67**	Not more than 40.00 %

The result of the materials tested meets the standards and hence can be used for the work.

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NEWZEN CONSULTANT BANGALORE

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NC/QC/BD/W5/2020-21/P1-2-GSB2 **Date: 18-02-2021**

TEST REPORT ON GRANULAR SUBBASE MIX
(GRADATION TEST)

Sub: To conduct tests on GSB (Grade-V) mix.
{Project*: Improvements to roads and drains at Kattigenahalli Main and Cross, Sirinagara Nirantara Layout, Sri krishna Garden, Shivashankara Layout, Varaha Layout, Bindhu Layout, and Surrounding areas in Ward No- 05.}
Ref.: Material testing/PMC/20-21,
Report Required for: Assistant Executive Engineer,
Byatarayanapura Sub Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: M/s SMLP Asphalts, Prop : B B Umesh, Bangalore.

TEST RESULTS

1. **Gradation Test:**
TABLE 1.1

Sieve Size mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Specified Limits as per MoRTH Specifications, V Revision-2013
75.00	**100.00**	100
53.00	**97.85**	80-100
26.50	**75.35**	55-90
9.50	**52.15**	35-65
4.75	**45.60**	25-50
2.36	**16.25**	10-20
0.85	**8.90**	2-10
0.425	**4.10**	0-5

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Date: 15-02-2021

TABLE 1.2

SL No	Test conducted	Test Results	Tests Conforms to IS 2386(Part I to IV)– 1963 (Reaffirmed on 2002) & Requirements as per IS:383-1970 & M.o.R.T.H Specification, V Revision -2013.
1.	Water absorption, %	**0.41 %**	Not more than 2.0 %
2.	Liquid Limit, %	**18.53**	Not more than 25.0 %
3.	Plasticity Index, %	**NP**	Not more than 6.0 %
4.	Moisture Content, %	**6.79**	----------
5.	Aggregate Impact Value, %	**28.84**	Not more than 40.00 %

The result of the materials tested meets the standards and hence can be used for the work.

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NC/QC/BD/W5/2020-21/P1-2-GSB3 Date: 23-02-2021

TEST REPORT ON GRANULAR SUBBASE MIX
(GRADATION TEST)

Sub: To conduct tests on GSB (Grade-V) mix.
{Project*: Improvements to roads and drains at Kattigenahalli Main and Cross, Sirinagara Nirantara Layout, Sri krishna Garden, Shivashankara Layout, Varaha Layout, Bindhu Layout, and Surrounding areas in Ward No- 05.}
Ref.: Material testing/PMC/20-21,
Report Required for: Assistant Executive Engineer,
Byatarayanapura Sub Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: M/s SMLP Asphalts, Prop : B B Umesh, Bangalore.

TEST RESULTS

1. **Gradation Test:**
TABLE 1.1

Sieve Size mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Specified Limits as per MoRTH Specifications, V Revision-2013
75.00	**100.00**	100
53.00	**96.45**	80-100
26.50	**79.30**	55-90
9.50	**57.25**	35-65
4.75	**42.65**	25-50
2.36	**17.20**	10-20
0.85	**8.65**	2-10
0.425	**3.90**	0-5

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Date: 23-02-2021

TABLE 1.2

SL No	Test conducted	Test Results	Tests Conforms to IS 2386(Part I to IV) - 1963 (Reaffirmed on 2002) & Requirements as per IS 383-1970 & M o R T H Specification, V Revision -2013
1.	Water absorption, %	**0.43%**	Not more than 2.0 %
2.	Liquid Limit, %	**18.76**	Not more than 25.0 %
3.	Plasticity Index, %	**NP**	Not more than 6.0 %
4.	Moisture Content, %	**6.49**	----------
5.	Aggregate Impact Value, %	**28.16**	Not more than 40.00 %

The result of the materials tested meets the standards and hence can be used for the work.

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NC/QC/BD/W5/2020-21/P1-2-GSB4 Date: 25-02-2021

TEST REPORT ON GRANULAR SUBBASE MIX
(GRADATION TEST)

Sub: To conduct tests on GSB (Grade-V) mix.
{Project*: Improvements to roads and drains at Kattigenahalli Main and Cross, Sirinagara Nirantara Layout, Sri krishna Garden, Shivashankara Layout, Varaha Layout, Bindhu Layout, and Surrounding areas in Ward No- 05.}
Ref.: Material testing/PMC/20-21,
Report Required for: Assistant Executive Engineer,
Byatarayanapura Sub Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: M/s SMLP Asphalts, Prop : B B Umesh, Bangalore.

TEST RESULTS

1. **Gradation Test:**
TABLE 1.1

Sieve Size mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Specified Limits as per MoRTH Specifications, V Revision-2013
75.00	**100.00**	100
53.00	**95.45**	80-100
26.50	**79.15**	55-90
9.50	**56.25**	35-65
4.75	**42.65**	25-50
2.36	**16.20**	10-20
0.85	**8.65**	2-10
0.425	**4.05**	0-5

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ., ಬೆಂಗಳೂರು-24

NEWZEN CONSULTANT BANGALORE, #13,10TH MAIN ROAD 2ND CROSS JNANAJYOTHI NAGARA,
JNANABHARATHI, BANGALORE-560056. CELL NO: +91 8792620231, 080 23240187
EMAIL:newzen576@gmail.com

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Date: 25-02-2021

TABLE 1.2

SL No	Test conducted	Test Results	Tests Conforms to IS 2386(Part I to IV)– 1963 (Reaffirmed on 2002) & Requirements as per IS:383-1970 & M.o.R.T.H Specification, V Revision -2013.
1.	Water absorption, %	**0.43 %**	Not more than 2.0 %
2.	Liquid Limit, %	**18.65**	Not more than 25.0 %
3.	Plasticity Index, %	**NP**	Not more than 6.0 %
4.	Moisture Content, %	**6.39**	----------
5.	Aggregate Impact Value, %	**28.45**	Not more than 40.00 %

The result of the materials tested meets the standards and hence can be used for the work.

ಸಹಾಯಕ ಸಂಚಾಲಕರು ಅಭಿವೃದ್ಧಿ
ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ
ಬಿ.ಬಿ.ಎಂ.ಪಿ., ಬೆಂಗಳೂರು-24

NEWZEN CONSULTANT BANGALORE, #13,10TH MAIN ROAD 2ND CROSS JNANAJYOTHI NAGARA,
JNANABHARATHI, BANGALORE-560056. CELL NO: +91 8792620231, 080 23240187
EMAIL:newzen576@gmail.com

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NC/QC/BD/W5/2020-21/P1-2-W1

Date: 02-03-2021

TEST REPORT ON WET MIX MACADAM MIX

(GRADATION TEST)

Sub: To conduct Gradation test on Wet Mix Macadam (WMM) Mix.
{Project*: Improvements to roads and drains at Kattigenahalli Main and Cross, Sirinagara Nirantara Layout, Sri krishna Garden, Shivashankara Layout, Varaha Layout, Bindhu Layout, and Surrounding areas in Ward No- 05.}
Ref.: Material testing/PMC/20-21,
Report Required for: Assistant Executive Engineer,
Byatarayanapura Sub Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: M/s SMLP Asphalts, Prop : B B Umesh, Bangalore.
.

TEST RESULTS

1. Gradation Test:

TABLE 1.1

Sieve Size mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Specified Limits as per MoRTH Specifications, V Revision-2013
53.00	**100.00**	100
45.00	**98.15**	95-100
26.50	**---**	-
22.40	**73.05**	60-80
11.20	**51.35**	40-60
4.75	**34.15**	25-40
2.36	**23.60**	15-30
0.600	**18.45**	8-22
0.075	**3.85**	0-5

ಸಹಾಯಕ ಕಾರ್ಯ ಪಾಲಕ ಅಭಿಯಂತರರು
ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ, ಬೆಂಗಳೂರು-24

NEWZEN CONSULTANT BANGALORE, #13,10TH MAIN ROAD 2ND CROSS JNANAJYOTHI NAGARA,
JNANABHARATHI, BANGALORE-560056. CELL NO: +91 8792620231, 080 23240187
EMAIL:newzen576@gmail.com

Scanned by CamScanner

Date: 02-03-2021

TABLE 1.2

SL No	Test conducted	Test Results	Tests Conforms to IS 2386(Part I to IV)– 1963 (Reaffirmed on 2002) & Requirements as per IS:383-1970 & M.o.R.T.H Specification, V Revision -2013.
1.	Aggregate Impact Value	**27.86%**	Not more than 30.00 %
2.	Combined Flakiness and Elongation index, %	**28.55%**	Not more than 35.0 %
3.	Water absorption, %	**0.42 %**	Not more than 2.0 %
4.	Plasticity Index, %	**NP**	Not more than 6.0 %

The result of the materials tested meets the standards and hence can be used for the work.

Scanned by CamScanner

NC/QC/BD/W5/2020-21/P1-2-W2 Date: 05-03-2021

TEST REPORT ON WET MIX MACADAM MIX

(GRADATION TEST)

Sub: To conduct Gradation test on Wet Mix Macadam (WMM) Mix.
{Project*: Improvements to roads and drains at Kattigenahalli Main and Cross, Sirinagara Nirantara Layout, Sri krishna Garden, Shivashankara Layout, Varaha Layout, Bindhu Layout, and Surrounding areas in Ward No- 05.}
Ref.: Material testing/PMC/20-21,
Report Required for: Assistant Executive Engineer,
Byatarayanapura Sub Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: M/s SMLP Asphalts, Prop : B B Umesh, Bangalore.

TEST RESULTS

1. Gradation Test:

TABLE 1.1

Sieve Size mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Specified Limits as per MoRTH Specifications, V Revision-2013
53.00	**100.00**	100
45.00	**97.15**	95-100
26.50	**---**	-
22.40	**72.05**	60-80
11.20	**54.35**	40-60
4.75	**32.80**	25-40
2.36	**25.65**	15-30
0.600	**19.05**	8-22
0.075	**3.45**	0-5

NEWZEN CONSULTANT BANGALORE, #13,10TH MAIN ROAD 2ND CROSS JNANAJYOTHI NAGARA,
JNANABHARATHI, BANGALORE-560056. CELL NO: +91 8792620231, 080 23240187
EMAIL:newzen576@gmail.com

Scanned by CamScanner

Date: 05-03-2021

TABLE 1.2

SL No	Test conducted	Test Results	Tests Conforms to IS 2386(Part I to IV)– 1963 (Reaffirmed on 2002) & Requirements as per IS:383-1970 & M.o.R.T.H Specification, V Revision -2013.
1.	Aggregate Impact Value	**27.65%**	Not more than 30.00 %
2.	Combined Flakiness and Elongation index, %	**28.73%**	Not more than 35.0 %
3.	Water absorption, %	**0.42%**	Not more than 2.0 %
4.	Plasticity Index, %	**NP**	Not more than 6.0 %

The result of the materials tested meets the standards and hence can be used for the work.

ಸಹಾಯಕ ಕಾರ್ಯನಿರ್ವಾಹಕ ಅಭಿಯಂತರರು
ಜ್ಞಾನಭಾರತಿ ಉಪ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ, ಬೆಂಗಳೂರು-24

NEWZEN CONSULTANTS BANGALORE

NEWZEN CONSULTANT BANGALORE, #13,10TH MAIN ROAD 2ND CROSS JNANAJYOTHI NAGARA,
JNANABHARATHI, BANGALORE-560056. CELL NO: +91 8792620231, 080 23240187
EMAIL:newzen576@gmail.com

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NC/QC/BD/W5/2020-21/P1-2-W3 Date: 08-03-2021

TEST REPORT ON WET MIX MACADAM MIX

(GRADATION TEST)

Sub: To conduct Gradation test on Wet Mix Macadam (WMM) Mix.
{Project*: Improvements to roads and drains at Kattigenahalli Main and Cross, Sirinagara Nirantara Layout, Sri krishna Garden, Shivashankara Layout, Varaha Layout, Bindhu Layout, and Surrounding areas in Ward No- 05.}
Ref.: Material testing/PMC/20-21,
Report Required for: Assistant Executive Engineer,
Byatarayanapura Sub Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: M/s SMLP Asphalts, Prop : B B Umesh, Bangalore.

TEST RESULTS

1. Gradation Test:

TABLE 1.1

Sieve Size mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Specified Limits as per MoRTH Specifications, V Revision-2013
53.00	**100.00**	100
45.00	**96.25**	95-100
26.50	**---**	-
22.40	**72.15**	60-80
11.20	**54.45**	40-60
4.75	**32.65**	25-40
2.36	**24.80**	15-30
0.600	**17.30**	8-22
0.075	**4.15**	0-5

NEWZEN CONSULTANT BANGALORE, #13,10TH MAIN ROAD 2ND CROSS JNANAJYOTHI NAGARA,
JNANABHARATHI, BANGALORE-560056. CELL NO: +91 8792620231, 080 23240187
EMAIL:newzen576@gmail.com

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NC/QC/BD/W5/2020-21/P1-2-W4 Date: 12-03-2021

TEST REPORT ON WET MIX MACADAM MIX

(GRADATION TEST)

Sub: To conduct Gradation test on Wet Mix Macadam (WMM) Mix.

Project*: Improvements to roads and drains at Kattigenahalli Main and Cross, Sirinagara Nirantara Layout, Sri krishna Garden, Shivashankara Layout, Varaha Layout, Bindhu Layout, and Surrounding areas in Ward No- 05.}

Ref.: Material testing/PMC/20-21,

Report Required for: Assistant Executive Engineer,
Byatarayanapura Sub Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: M/s SMLP Asphalts, Prop : B B Umesh, Bangalore.

TEST RESULTS

1. Gradation Test:

TABLE 1.1

Sieve Size mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Specified Limits as per MoRTH Specifications, V Revision-2013
53.00	**100.00**	100
45.00	**98.35**	95-100
26.50	---	-
22.40	**74.65**	60-80
11.20	**53.05**	40-60
4.75	**32.90**	25-40
2.36	**26.15**	15-30
0.600	**19.55**	8-22
0.075	**3.85**	0-5

NEWZEN CONSULTANT BANGALORE, #13,10TH MAIN ROAD 2ND CROSS JNANAJYOTHI NAGARA,
JNANABHARATHI, BANGALORE-560056. CELL NO: +91 8792620231, 080 23240187
EMAIL:newzen576@gmail.com

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Date: 12-03-2021

TABLE 1.2

SL No	Test conducted	Test Results	Tests Conforms to IS 2386(Part I to IV)– 1963 (Reaffirmed on 2002) & Requirements as per IS:383-1970 & M.o.R.T.H Specification, V Revision -2013.
1.	Aggregate Impact Value	**27.09 %**	Not more than 30.00 %
2.	Combined Flakiness and Elongation index, %	**28.55 %**	Not more than 35.0 %
3.	Water absorption, %	**0.43 %**	Not more than 2.0 %
4.	Plasticity Index, %	**NP**	Not more than 6.0 %

The result of the materials tested meets the standards and hence can be used for the work.

NEWZEN CONSULTANT BANGALORE

NEWZEN CONSULTANT BANGALORE, #13,10TH MAIN ROAD 2ND CROSS JNANAJYOTHI NAGARA, JNANABHARATHI, BANGALORE-560056. CELL NO: +91 8792620231, 080 23240187
EMAIL:newzen576@gmail.com

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NC/QC/BD/W5/2020-21/P1-2-W5 Date: 16-12-2021

TEST REPORT ON WET MIX MACADAM MIX
(GRADATION TEST)

Sub: To conduct Gradation test on Wet Mix Macadam (WMM) Mix.
(Project*: Improvements to roads and drains at Kamgeenahalli Main and Cross, Sriniagara Nirantara Layout, Sri krishna Garden, Shivashankara Layout, Varaha Layout, Bindhu Layout, and Surrounding areas in Ward No- 05.)
Ref. Material testing PMC 20-21,
Report Required for: Assistant Executive Engineer,
Byatarayanapura Sub Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: M/s SMLP Asphalts, Prop : B B Umesh, Bangalore.

TEST RESULTS

1. Gradation Test:
TABLE 1.1

Sieve Size mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Specified Limits as per MoRTH Specifications, V Revision-2013
53.00	100.00	100
45.00	97.55	95-100
26.50	—	-
22.40	74.35	70-80
11.20	52.80	40-70
4.75	35.55	25-40
2.36	23.30	15-30
0.600	18.90	8-22
0.075	4.05	0-5

Page No: 1/2.

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Date: 16-03-2021

TABLE 1.2

SL No	Test conducted	Test Results	Tests Conforms to IS 2386(Part I to IV)– 1963 (Reaffirmed on 2002) & Requirements as per IS:383-1970 & M.o.R.T.H Specification, V Revision -2013.
1.	Aggregate Impact Value	**26.76%**	Not more than 30.00 %
2.	Combined Flakiness and Elongation index, %	**28.65%**	Not more than 35.0 %
3.	Water absorption, %	**0.42 %**	Not more than 2.0 %
4.	Plasticity Index, %	**NP**	Not more than 6.0 %

The result of the materials tested meets the standards and hence can be used for the work.

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ., ಬೆಂಗಳೂರು-26

NEWZEN CONSULTANT BANGALORE

NEWZEN CONSULTANT BANGALORE, #13,10TH MAIN ROAD 2ND CROSS JNANAJYOTHI NAGARA, JNANABHARATHI, BANGALORE-560056. CELL NO: +91 8792620231, 080 23240187
EMAIL:newzen576@gmail.com

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NC/QC/BD/W5/2020-21/P1-2-W6 Date: 19-03-2021

TEST REPORT ON WET MIX MACADAM MIX
(GRADATION TEST)

Sub: To conduct Gradation test on Wet Mix Macadam (WMM) Mix.
{Project*: Improvements to roads and drains at Kattigenahalli Main and Cross, Sirinagara Nirantara Layout, Sri krishna Garden, Shivashankara Layout, Varaha Layout, Bindhu Layout, and Surrounding areas in Ward No- 05.}
Ref.: Material testing/PMC/20-21,
Report Required for: Assistant Executive Engineer,
Byatarayanapura Sub Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: M/s SMLP Asphalts, Prop : B B Umesh, Bangalore.

TEST RESULTS

1. Gradation Test:

TABLE 1.1

Sieve Size mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Specified Limits as per MoRTH Specifications, V Revision-2013
53.00	**100.00**	100
45.00	**96.45**	95-100
26.50	**---**	-
22.40	**71.15**	60-80
11.20	**54.25**	40-60
4.75	**32.65**	25-40
2.36	**24.80**	15-30
0.600	**19.25**	8-22
0.075	**3.95**	0-5

ಸಹಾಯಕ ಕಾರ್ಯ ನಿರ್ವಾಹಕ ಇಂಜಿನಿಯರ್
ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ, ಬೆಂಗಳೂರು-24

NEWZEN CONSULTANT BANGALORE

NEWZEN CONSULTANT BANGALORE, #13,10TH MAIN ROAD 2ND CROSS JNANAJYOTHI NAGARA, JNANABHARATHI, BANGALORE-560056. CELL NO: +91 8792620231, 080 23240187
EMAIL:newzen576@gmail.com

Scanned by CamScanner

Date: 19-03-2021

TABLE 1.2

SL No	Test conducted	Test Results	Tests Conforms to IS 2386(Part I to IV)– 1963 (Reaffirmed on 2002) & Requirements as per IS:383-1970 & M.o.R.T.H Specification, V Revision -2013.
1.	Aggregate Impact Value	**27.46%**	Not more than 30.00 %
2.	Combined Flakiness and Elongation index, %	**28.19%**	Not more than 35.0 %
3.	Water absorption, %	**0.42%**	Not more than 2.0 %
4.	Plasticity Index, %	**NP**	Not more than 6.0 %

The result of the materials tested meets the standards and hence can be used for the work.

ನಿರ್ವಾಹಕ ಕಾರ್ಯನಿರ್ವಾಹಕ ಅಭಿಯಂತರರು
ಜ್ಞಾನಭಾರತಿ ಉಪ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ., ಬೆಂಗಳೂರು-24

NEWZEN CONSULTANT BANGALORE

NEWZEN CONSULTANT BANGALORE, #13,10TH MAIN ROAD 2ND CROSS JNANAJYOTHI NAGARA, JNANABHARATHI, BANGALORE-560056. CELL NO: +91 8792620231, 080 23240187
EMAIL:newzen576@gmail.com

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NC/QC/BD/W5/2020-21/P1-2-W7 Date: 22-03-2021

TEST REPORT ON WET MIX MACADAM MIX
(GRADATION TEST)

Sub: To conduct Gradation test on Wet Mix Macadam (WMM) Mix.
{Project*: Improvements to roads and drains at Kattigenahalli Main and Cross, Sirinagara Nirantara Layout, Sri krishna Garden, Shivashankara Layout, Varaha Layout, Bindhu Layout, and Surrounding areas in Ward No- 05.}
Ref.: Material testing/PMC/20-21,
Report Required for: Assistant Executive Engineer,
Byatarayanapura Sub Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: M/s SMLP Asphalts, Prop : B B Umesh, Bangalore.

TEST RESULTS

1. Gradation Test:

TABLE 1.1

Sieve Size mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Specified Limits as per MoRTH Specifications, V Revision-2013
53.00	**100.00**	100
45.00	**97.35**	95-100
26.50	**---**	-
22.40	**74.15**	60-80
11.20	**52.25**	40-60
4.75	**36.75**	25-40
2.36	**22.10**	15-30
0.600	**18.35**	8-22
0.075	**4.15**	0-5

ಸಹಾಯಕ ಕಾರ್ಯನಿರ್ವಾಹಕ ಅಭಿಯಂತರರು
ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ, ಬೆಂಗಳೂರು-24

NEWZEN CONSULTANT BANGALORE, #13,10TH MAIN ROAD 2ND CROSS JNANAJYOTHI NAGARA, JNANABHARATHI, BANGALORE-560056. CELL NO: +91 8792620231, 080 23240187
EMAIL:newzen576@gmail.com

Scanned by CamScanner

Date: 22-03-2021

TABLE 1.2

SL No	Test conducted	Test Results	Tests Conforms to IS 2386(Part I to IV)– 1963 (Reaffirmed on 2002) & Requirements as per IS:383-1970 & M.o.R.T.H Specification, V Revision -2013.
1.	Aggregate Impact Value	**27.35%**	Not more than 30.00 %
2.	Combined Flakiness and Elongation index, %	**28.69%**	Not more than 35.0 %
3.	Water absorption, %	**0.43 %**	Not more than 2.0 %
4.	Plasticity Index, %	**NP**	Not more than 6.0 %

The result of the materials tested meets the standards and hence can be used for the work.

ಸಹಾಯಕ ಅಭಿಯಂತರರು
ಬಿ.ಬಿ.ಎಂ.ಪಿ ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ

ಸಹಾಯಕ ಕಾರ್ಯ ನಿರ್ವಾಹಕ ಅಭಿಯಂತರರು
ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ, ಬೆಂಗಳೂರು-26

NEWZEN CONSULTANT BANGALORE

NEWZEN CONSULTANT BANGALORE, #13,10TH MAIN ROAD 2ND CROSS JNANAJYOTHI NAGARA,
JNANABHARATHI, BANGALORE-560056. CELL NO: +91 8792620231, 080 23240187
EMAIL:newzen576@gmail.com

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NC/QC/BD/W5/2020-21/P1-2-W8 **Date: 25-03-2021**

TEST REPORT ON WET MIX MACADAM MIX
(GRADATION TEST)

Sub: To conduct Gradation test on Wet Mix Macadam (WMM) Mix.
{Project*: Improvements to roads and drains at Kattigenahalli Main and Cross, Sirinagara Nirantara Layout, Sri krishna Garden, Shivashankara Layout, Varaha Layout, Bindhu Layout, and Surrounding areas in Ward No- 05.}
Ref.: Material testing/PMC/20-21,
Report Required for: Assistant Executive Engineer,
Byatarayanapura Sub Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: M/s SMLP Asphalts, Prop : B B Umesh, Bangalore.

TEST RESULTS

1. Gradation Test:

TABLE 1.1

Sieve Size mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Specified Limits as per MoRTH Specifications, V Revision-2013
53.00	**100.00**	100
45.00	**96.10**	95-100
26.50	**---**	-
22.40	**73.60**	60-80
11.20	**56.45**	40-60
4.75	**33.05**	25-40
2.36	**22.80**	15-30
0.600	**18.15**	8-22
0.075	**3.55**	0-5

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ, ಬೆಂಗಳೂರು-24

NEWZEN CONSULTANTS BANGALORE

NEWZEN CONSULTANT BANGALORE, #13,10TH MAIN ROAD 2ND CROSS JNANAJYOTHI NAGARA, JNANABHARATHI, BANGALORE-560056. CELL NO: +91 8792620231, 080 23240187
EMAIL:newzen576@gmail.com

Scanned by CamScanner

Date: 25-03-2021

TABLE 1.2

SL No	Test conducted	Test Results	Tests Conforms to IS 2386(Part I to IV)– 1963 (Reaffirmed on 2002) & Requirements as per IS:383-1970 & M.o.R.T.H Specification, V Revision -2013.
1.	Aggregate Impact Value	**26.46%**	Not more than 30.00 %
2.	Combined Flakiness and Elongation index, %	**28.79%**	Not more than 35.0 %
3.	Water absorption, %	**0.44%**	Not more than 2.0 %
4.	Plasticity Index, %	**NP**	Not more than 6.0 %

The result of the materials tested meets the standards and hence can be used for the work.

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ, ಬೆಂಗಳೂರು-24

NEWZEN CONSULTANT BANGALORE

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NC/QC/BD/W5/2020-21/P1-2-W9 Date: 29-03-2021

TEST REPORT ON WET MIX MACADAM MIX
(GRADATION TEST)

Sub: To conduct Gradation test on Wet Mix Macadam (WMM) Mix.
{Project*: Improvements to roads and drains at Kattigenahalli Main and Cross, Sirinagara Nirantara Layout, Sri krishna Garden, Shivashankara Layout, Varaha Layout, Bindhu Layout, and Surrounding areas in Ward No- 05.}
Ref.: Material testing/PMC/20-21,
Report Required for: Assistant Executive Engineer,
Byatarayanapura Sub Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: M/s SMLP Asphalts, Prop : B B Umesh, Bangalore.

TEST RESULTS

1. Gradation Test:
TABLE 1.1

Sieve Size mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Specified Limits as per MoRTH Specifications, V Revision-2013
53.00	**100.00**	100
45.00	**98.15**	95-100
26.50	**---**	-
22.40	**74.05**	60-80
11.20	**52.85**	40-60
4.75	**31.40**	25-40
2.36	**23.55**	15-30
0.600	**19.35**	8-22
0.075	**3.85**	0-5

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NEWZEN CONSULTANT BANGALORE, #13,10TH MAIN ROAD 2ND CROSS JNANAJYOTHI NAGARA,
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Date: 29-03-2021

TABLE 1.2

SL No	Test conducted	Test Results	Tests Conforms to IS 2386(Part I to IV)– 1963 (Reaffirmed on 2002) & Requirements as per IS:383-1970 & M.o.R.T.H Specification, V Revision -2013.
1.	Aggregate Impact Value	**27.65%**	Not more than 30.00 %
2.	Combined Flakiness and Elongation index, %	**28.19%**	Not more than 35.0 %
3.	Water absorption, %	**0.43%**	Not more than 2.0 %
4.	Plasticity Index, %	**NP**	Not more than 6.0 %

The result of the materials tested meets the standards and hence can be used for the work.

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NC/QC/BD/W5/2020-21/P1-2-W10 **Date: 01-04-2021**

TEST REPORT ON WET MIX MACADAM MIX
(GRADATION TEST)

Sub: To conduct Gradation test on Wet Mix Macadam (WMM) Mix.
{Project*: Improvements to roads and drains at Kattigenahalli Main and Cross, Sirinagara Nirantara Layout, Sri krishna Garden, Shivashankara Layout, Varaha Layout, Bindhu Layout, and Surrounding areas in Ward No- 05.}
Ref.: Material testing/PMC/20-21,
Report Required for: Assistant Executive Engineer,
Byatarayanapura Sub Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: M/s SMLP Asphalts, Prop : B B Umesh, Bangalore.

TEST RESULTS

1. Gradation Test:
TABLE 1.1

Sieve Size mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Specified Limits as per MoRTH Specifications, V Revision-2013
53.00	**100.00**	100
45.00	**96.45**	95-100
26.50	**---**	-
22.40	**71.05**	60-80
11.20	**54.35**	40-60
4.75	**32.15**	25-40
2.36	**25.75**	15-30
0.600	**18.15**	8-22
0.075	**3.45**	0-5

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Date: 01-04-2021

TABLE 1.2

SL No	Test conducted	Test Results	Tests Conforms to IS 2386(Part I to IV)– 1963 (Reaffirmed on 2002) & Requirements as per IS:383-1970 & M.o.R.T.H Specification, V Revision -2013.
1.	Aggregate Impact Value	**27.58%**	Not more than 30.00 %
2.	Combined Flakiness and Elongation index, %	**28.71%**	Not more than 35.0 %
3.	Water absorption, %	**0.43 %**	Not more than 2.0 %
4.	Plasticity Index, %	**NP**	Not more than 6.0 %

The result of the materials tested meets the standards and hence can be used for the work.

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NC/QC/BD/W5/2020-21/P1-2-W11 Date: 03-04-2021

TEST REPORT ON WET MIX MACADAM MIX
(GRADATION TEST)

Sub: To conduct Gradation test on Wet Mix Macadam (WMM) Mix.
{Project*: Improvements to roads and drains at Kattigenahalli Main and Cross, Sirinagara Nirantara Layout, Sri krishna Garden, Shivashankara Layout, Varaha Layout, Bindhu Layout, and Surrounding areas in Ward No- 05.}
Ref.: Material testing/PMC/20-21,
Report Required for: Assistant Executive Engineer,
Byatarayanapura Sub Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: M/s SMLP Asphalts, Prop : B B Umesh, Bangalore.

TEST RESULTS

1. Gradation Test:

TABLE 1.1

Sieve Size mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Specified Limits as per MoRTH Specifications, V Revision-2013
53.00	**100.00**	100
45.00	**97.25**	95-100
26.50	**---**	-
22.40	**70.15**	60-80
11.20	**54.95**	40-60
4.75	**32.75**	25-40
2.36	**23.50**	15-30
0.600	**19.30**	8-22
0.075	**3.80**	0-5

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Date: 03-04-2021

TABLE 1.2

SL No	Test conducted	Test Results	Tests Conforms to IS 2386(Part I to IV)– 1963 (Reaffirmed on 2002) & Requirements as per IS:383-1970 & M.o.R.T.H Specification, V Revision -2013.
1.	Aggregate Impact Value	**27.63%**	Not more than 30.00 %
2.	Combined Flakiness and Elongation index, %	**28.39 %**	Not more than 35.0 %
3.	Water absorption, %	**0.43%**	Not more than 2.0 %
4.	Plasticity Index, %	**NP**	Not more than 6.0 %

The result of the materials tested meets the standards and hence can be used for the work.

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NC/QC/BD/W5/2020-21/P1-2-W12 Date: 06-04-2021

TEST REPORT ON WET MIX MACADAM MIX

(GRADATION TEST)

Sub: To conduct Gradation test on Wet Mix Macadam (WMM) Mix.
{Project*: Improvements to roads and drains at Kattigenahalli Main and Cross, Sirinagara Nirantara Layout, Sri krishna Garden, Shivashankara Layout, Varaha Layout, Bindhu Layout, and Surrounding areas in Ward No- 05.}
Ref.: Material testing/PMC/20-21,
Report Required for: Assistant Executive Engineer,
Byatarayanapura Sub Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: M/s SMLP Asphalts, Prop : B B Umesh, Bangalore.

TEST RESULTS

1. Gradation Test:

TABLE 1.1

Sieve Size mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Specified Limits as per MoRTH Specifications, V Revision-2013
53.00	**100.00**	100
45.00	**96.25**	95-100
26.50	**---**	-
22.40	**73.90**	60-80
11.20	**52.65**	40-60
4.75	**34.90**	25-40
2.36	**25.05**	15-30
0.600	**18.25**	8-22
0.075	**3.65**	0-5

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Date: 06-04-2021

TABLE 1.2

SL No	Test conducted	Test Results	Tests Conforms to IS 2386(Part I to IV)- 1963 (Reaffirmed on 2002) & Requirements as per IS:383-1970 & M.o.R.T.H Specification, V Revision -2013.
1.	Aggregate Impact Value	**27.18 %**	Not more than 30.00 %
2.	Combined Flakiness and Elongation index, %	**28.56 %**	Not more than 35.0 %
3.	Water absorption, %	**0.42 %**	Not more than 2.0 %
4.	Plasticity Index, %	**NP**	Not more than 6.0 %

The result of the materials tested meets the standards and hence can be used for the work.

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ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ
ಯಲಹಂಕ, ಬೆಂಗಳೂರು-64

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NC/QC/BD/W5/2020-21/P1-2-BD1

Date: 17-05-2021

1. TEST REPORT ON BITUMEN SAMPLE:

Sub: Testing of Bitumen sample VG-30 Grade.

{Project*: Improvements to roads and drains at Kattigenahalli Main and Cross, Sirinagara Nirantara Layout, Sri krishna Garden, Shivashankara Layout, Varaha Layout, Bindhu Layout, and Surrounding areas in Ward No- 05.}

Ref.: Material testing/PMC/20-21,

Report Required for: Assistant Executive Engineer,
Byatarayanapura Sub Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: M/s SMLP Asphalts, Prop : B B Umesh, Bangalore.

Technical Reference: Ministry of Road Transport and Highways, V Revision, 2013 and IS 73: 1992.

TABLE 1.1 ;

SL No	Details	Test Results	Requirements as per I.S 73 –1992 Specifications
1.	Penetration at 25^0 C	**52.80^0 C**	Min. 45
2.	Ductility Value at 25^0 C	**109.70 cm**	40
3.	Flash point	**248^0 C**	Minimum 220^0 C
4.	Softening point	**51.40^0 C**	Min. 47

The result of the materials tested meets the standards and hence can be used for the work.

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NC/QC/BD/W5/2020-21/P1-2-CD1 **Date: 17-05-2021**

1. TEST REPORT ON COARSE AGGREGATE:

Sub: Testing of Coarse Aggregate used in Dense Graded Bituminous Macadam.
{Project*: Improvements to roads and drains at Kattigenahalli Main and Cross, Sirinagara Nirantara Layout, Sri krishna Garden, Shivashankara Layout, Varaha Layout, Bindhu Layout, and Surrounding areas in Ward No- 05.}
Ref.: Material testing/PMC/20-21,
Report Required for: Assistant Executive Engineer,
Byatarayanapura Sub Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: M/s SMLP Asphalts, Prop : B B Umesh, Bangalore.

TABLE 1.1 ;

SL No	Test conducted	Test Results	Tests Conforms to IS 2386(Part I to IV)– 1963 (Reaffirmed on 2002) & Requirements as per IS:383-1970 & M.o.R.T.H Specification, V Revision -2013.
1.	Aggregate Impact Value	**23.06%**	Not more than 27.00 % for DBM
2.	Combined Flakiness and Elongation index, %	**26.76%**	Not more than 35.0 %
3.	Water absorption, %	**0.42%**	Not more than 2.0 %
4.	Specific gravity	**2.62**	-------
5.	Soundness	**6.58 %**	Max. 12 % in Sodium Sulphate

The result of the materials tested meets the standards and hence can be used for the work.

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NC/QC/BD/W5/2020-21/P1-2-DBM1 Date: 19-05-2021

1.TEST REPORT ON BITUMINOUS MIXES :
(BITUMEN EXTRACTION TEST & GRADATION TEST)

Sub: To determine the percentage of bitumen and gradation for DBM mix sample.
{Project*: Improvements to roads and drains at Kattigenahalli Main and Cross, Sirinagara Nirantara Layout, Sri krishna Garden, Shivashankara Layout, Varaha Layout, Bindhu Layout, and Surrounding areas in Ward No- 05.}
Ref.: Material testing/PMC/20-21,
Report Required for: Assistant Executive Engineer,
Byatarayanapura Sub Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: M/s SMLP Asphalts, Prop : B B Umesh, Bangalore.

TEST RESULTS

A. Type of Construction : **Dense Graded Bituminous Macadam.**
1. The bitumen content obtained after subjecting the sample for Bitumen Extraction test = **4.52 %**

2. **Gradation Test**
TABLE 1.1

Sieve Size, mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Gradation requirement as per Table 500-10 of MORTH Specfications-2013 DBM (Grading - 2)
37.5	**100**	100
26.5	**97.25**	90-100
19.0	**81.15**	71-95
13.20	**73.40**	56-80
4.75	**47.65**	38-54
2.36	**34.05**	28-42
0.300	**18.90**	7-21
0.075	**6.40**	2-8

The result of the materials tested meets the standards and hence can be used for the work.

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NC/QC/BD/W5/2020-21/P1-2-DS1

Date: 19-05-2021

1.TEST REPORT ON BITUMINOUS MIXES :
(STABILITY OF BITUMINOUS MIX)

Sub: To determine the stability of bituminous mix for DBM mix sample.
{Project*: Improvements to roads and drains at Kattigenahalli Main and Cross, Sirinagara Nirantara Layout, Sri krishna Garden, Shivashankara Layout, Varaha Layout, Bindhu Layout, and Surrounding areas in Ward No- 05.}
Ref.: Material testing/PMC/20-21,
Report Required for: Assistant Executive Engineer,
Byatarayanapura Sub Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: M/s SMLP Asphalts, Prop : B B Umesh, Bangalore.

TEST RESULTS

Table 1: Properties of DBM (Gr-2) Mix

Sl. No.	Test Property	*Test results obtained by Marshall method	Requirements of Dense Bituminous Macadam, Grade-2 as per M.o.R.T&H (IV Revision)-2001 Specifications
1	Marshall Stability (75 blows) (At 60°C), kgs.	**1246**	900
2	Marshall Flow at 60°C, mm.	**3.34**	2.0 - 4.0

The result of the materials tested meets the standards and hence can be used for the work.

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NC/QC/BD/W5/2020-21/P1-2-DBM2

Date: 19-05-2021

1.TEST REPORT ON BITUMINOUS MIXES :
(BITUMEN EXTRACTION TEST & GRADATION TEST)

Sub: To determine the percentage of bitumen and gradation for DBM mix sample.
{Project*: Improvements to roads and drains at Kattigenahalli Main and Cross, Sirinagara Nirantara Layout, Sri krishna Garden, Shivashankara Layout, Varaha Layout, Bindhu Layout, and Surrounding areas in Ward No- 05.}
Ref.: Material testing/PMC/20-21,
Report Required for: Assistant Executive Engineer,
Byatarayanapura Sub Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: M/s SMLP Asphalts, Prop : B B Umesh, Bangalore.

TEST RESULTS

A. Type of Construction : **Dense Graded Bituminous Macadam.**
1. The bitumen content obtained after subjecting the sample for Bitumen Extraction test = **4.53 %**

2. **Gradation Test**
TABLE 1.1

Sieve Size, mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Gradation requirement as per Table 500-10 of MORTH Specfications-2013 DBM (Grading - 2)
37.5	**100**	100
26.5	**97.45**	90-100
19.0	**84.25**	71-95
13.20	**73.60**	56-80
4.75	**48.10**	38-54
2.36	**35.80**	28-42
0.300	**18.20**	7-21
0.075	**6.15**	2-8

. The result of the materials tested meets the standards and hence can be used for the work.

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